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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR        | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------------|---------------------|------------------|
| 10/798,814   | 03/10/2004  | Sung-Yong Kang              | 21C-0117            | 7126             |
| 23413 7590 01/08/2009<br>CANTOR COLBURN, LLP<br>20 Church Street<br>22nd Floor<br>Hartford, CT 06103 |             |                             |                     |                  |
| EXAMINER<br>CHEN, WEN YING PATTY   |             |                             |                     |                  |
| ART UNIT<br>2871   |             | PAPER NUMBER                |                     |                  |
| NOTIFICATION DATE<br>01/08/2009  |             | DELIVERY MODE<br>ELECTRONIC |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

### Office Action Summary

**Application No.**

10/798,814

**Applicant(s)**

KANG ET AL.

**Examiner**

WEN-YING PATTY CHEN

**Art Unit**

2871

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-8, 11, 14 and 16-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9, 10, 12, 13, 15, 23 and 25 is/are rejected.
- 7) ☒ Claim(s) 22 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

The Amendment filed on Oct. 15, 2008 has been entered. Claims 22-25 are newly added per the Amendment filed. Therefore, claims 1-25 are now pending in the current application, however, claims 1-8, 11, 14 and 16-21 are withdrawn from consideration.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 9, 10, 12, 13, 15, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagamura et al. (US 6292239) in view of Yamanaka (JP 9-022000A).**

With respect to claim 9 (Amended): Nagamura discloses in Figure 9 a backlight assembly comprising:

- a receiving container (element 20B) including a bottom plate and sidewalls protruded from edges of the bottom plate to form a receiving space (as shown in the figure);
- a light exiting device (not labeled, but as shown) disposed in the receiving space; and
- a liquid crystal display panel supporting member (element 17) including a first supporting member frame portion (as shown), and a second supporting member frame portion,
  - the first supporting member frame portion having an opening (as shown) formed in an internal face of the first supporting member frame portion,
  - the second supporting member frame portion being vertically extended directly from the first supporting member frame portion (as shown in the figure), a side face of the liquid crystal display panel (not labeled, but as shown) that is to be mounted on the liquid crystal display panel supporting member facing an inner side face of the second supporting member frame portion, the second supporting member frame portion fixing the liquid crystal display panel and substantially blocks translation of the liquid crystal display panel in a horizontal direction substantially normal to the vertical extension of the second supporting member frame portion (as shown in the figure).

Nagamura does not disclose a particle interceptor.

However, Yamanaka teaches in Figure 7 of using a substrate support (element 9) formed on the frame (element 5), which acts as a particle interceptor, having a recess directly formed therein such that the particle interceptor is formed in a shape of a closed loop (as shown in Figure 2) along a first face of the frame facing the bottom plate of the liquid crystal display panel (element 1), the particle interceptor preventing the particles from infiltrating into an image display region of the liquid crystal display panel (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a backlight assembly as taught by Nagamura wherein the frame for supporting the liquid crystal display panel comprises a substrate support as taught by Yamanaka, since Yamanaka teaches that having a substrate support of the specific configuration improves the shock resistance of the display panel and also helps to prevent invasion of garbage, which decreases the display performance (Paragraph 0037).

As to claim 10: Yamanaka further discloses in the Abstract that the particle interceptor includes a material having flowability (made of elastic material).

As to claim 12: Since Yamanaka discloses in Figure 2 that the particle interceptor (element 9) is formed in a shape of a closed loop, therefore, the recess would also be formed in a shape of a closed loop.

As to claim 13: Yamanaka further discloses in the Abstract that the particle interceptor comprises silicone or rubber.

As to claim 23 (New): Nagamura further discloses in Figure 9 that the first supporting member frame portion and the second supporting member frame portion are integrally molded as a unitary indivisible part (as shown in the figure).

With respect to claim 15 (Amended): Nagamura discloses in Figure 9 a liquid crystal display apparatus comprising:

- a receiving container (element 20B) including a bottom plate and sidewalls protruded from edges of the bottom plate to form a receiving space (as shown in the figure);

- a light exiting device (not labeled, but as shown) disposed in the receiving space to exit a light;

- a liquid crystal display panel (not labeled, but as shown) that converts the light into an image light;

- a liquid crystal display panel supporting member (element 17) including a first supporting member frame portion (as shown), and a second supporting member frame portion,

- the first supporting member frame portion having an opening (as shown) formed in an internal face of the first supporting member frame portion,

- the second supporting member frame portion being vertically extended directly from the first supporting member frame portion (as shown in the figure), a side face of the liquid crystal display panel (not labeled, but as shown) that is to be mounted on the liquid crystal display panel supporting member facing an inner side face of the second supporting member frame portion, the second supporting member frame portion fixing the liquid crystal display panel and substantially blocks translation of the liquid crystal display panel in a horizontal

direction substantially normal to the vertical extension of the second supporting member frame portion (as shown in the figure); and

a chassis (element 20T) received in the receiving container, the chassis covering edges of a top face of the liquid crystal display panel (as shown).

Nagamura does not disclose a particle interceptor.

However, Yamanaka teaches in Figure 7 of using a substrate support (element 9) formed on the frame (element 5), which acts as a particle interceptor, having a recess directly formed therein such that the particle interceptor is formed in a shape of a closed loop (as shown in Figure 2) along a first face of the frame facing the bottom plate of the liquid crystal display panel (element 1), the particle interceptor preventing the particles from infiltrating into an image display region of the liquid crystal display panel (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a backlight assembly as taught by Nagamura wherein the frame for supporting the liquid crystal display panel comprises a substrate support as taught by Yamanaka, since Yamanaka teaches that having a substrate support of the specific configuration improves the shock resistance of the display panel and also helps to prevent invasion of garbage, which decreases the display performance (Paragraph 0037).

As to claim 25 (New): Nagamura further discloses in Figure 9 that the first supporting member frame portion and the second supporting member frame portion are integrally molded as a unitary indivisible part (as shown in the figure).

***Allowable Subject Matter***

Claims 22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The closest prior art Yamanaka discloses in Figure 7 of a particle interceptor (element 9) comprising a recess, wherein the particle interceptor has a trapezoid sectional shape (Paragraph 0034). Therefore, none of the prior arts either alone or in combination fairly teach or suggest that the particle interceptor having a recess formed therein has a rectangular cross sectional shape except for the at least one recess directly formed therein. Hence, claims 22 and 24 are deemed non-obvious and inventive over the prior arts and are allowable.

***Response to Arguments***

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO



MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WEN-YING PATTY CHEN whose telephone number is (571)272-8444. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WEN-YING PATTY CHEN  
Examiner  
Art Unit 2871

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Examiner, Art Unit 2871

/David Nelms/  
Supervisory Patent Examiner, Art Unit 2871